A downward spiral

In their efforts to shore up failing banks and promote financial stability, state-led rescues in the eurozone may have done lasting harm. Dr Renatas Kizys tracks the ebb and flow of value

The global financial crisis that followed the default of Lehman Brothers in September 2008 put the threat of collapse of financial institutions centre stage, alarmed the authorities, triggered large-scale state-funded capital injections in the banking sector and led to an astounding increase in banks' credit default swap (BCDS) spreads.

Those bank bailouts triggered an unparalleled deterioration of public finances of the world's major advanced economies in a peacetime period. Deteriorating public finances by turn provoked fiscal imbalances in the euro area, reflected in the unprecedented increase in sovereign credit default swap spreads (SCDSs).

Recapitalising banks

There is a widespread belief that governments acquiring banks can recapitalise those banks, provide reassurance and boost the confidence of bank customers and shareholders. By means of state-funded bank bailouts, credit risk can be transferred from the banking to the public sector. However, we only saw temporary improvement in the levels of perceived credit risk in the banking sector after bank bailouts in the euro area in the aftermath of the global financial crisis. For instance, by the first quarter of 2009, BCDS contracts were traded again at par with SCDS contracts.

Since November 2009, several euro-area countries, including Greece, Ireland, Italy Portugal and Spain, underwent episodes of instability in their sovereign debt markets and their SCDS spreads have risen. However, the downside of large-scale capital injections to problematic banks and bank bailouts have become subject to scrutiny by academics, investors and policymakers only recently. For instance, non-performing assets taken over from the banking sector may impair the government's balance sheet.

LEVERAGE

The procyclicality of lending refers to the extent to which credit supply fluctuates as a consequence of how banks manage their leverage in response to changing economic conditions. Leverage tends to be high during upturns and low during downswings. The procyclicality phenomenon is one of the reasons why business cycles occur and why the economy grows unsustainably fast in business cycle upturns and then experiences a low and often negative rate of growth in business cycle downturns. Indeed, the banking sector can influence the extent to which economic growth deviates from the long-run trend.

Our research provides evidence of significant two-way interconnectedness between public finances and banking sector stability. On the one hand, a systemic banking crisis triggers a business-cycle recession, which causes fiscal imbalances and leads to a higher default risk of sovereign bonds. Banks and other financial institutions that suffer unanticipated outflow of deposits and encounter funding and liquidity issues in the wholesale market are forced to reduce their lending activity and to deleverage their balance sheets. As less credit becomes available to companies and individuals, economic growth slows down and eventually becomes negative. Thus, a systemic banking crisis causes a recessionary effect on investment, consumption, income and taxation income. Consequently, government debt rises and sovereign credit default risk increases.

CREDIT DEFAULT SWAPS

The credit default swap (CDS) – a derivative financial instrument – is used by investors to hedge against a deterioration of credit quality and the risk of default of the issuer of the underlying debt instrument.

If the issuer defaults, the seller of the CDS is obliged to pay the difference between the principal amount protected by the CDS and the market value of the debt. CDS contracts provide protection against the default of corporations, sovereign issuers, mortgage payers and other borrowers. For instance, when Lehman Brothers defaulted, its debt was worth about 8% of its notional value, hence sellers of protection had to pay about 92% of the notional dollar of debt they had guaranteed.

treasury bills as collateral – declines due to the lower collateral value of sovereign debt. More generally, a sovereign default affects financial markets and the economy via two intertwined channels, the credit channel and the investment channel. First, a sovereign default can cause a contraction in the credit market via the credit channel. Second, it can lead to a decrease in investments by negatively affecting firms' net worth and making collateral constraints more stringent. The interaction and synchronicity between these two channels determines the overall size of the loss.

The main holders of sovereign debt are banks and other financial institutions

Sovereign debt

As the probability of default on sovereign debt rises, investors will require higher risk premium on investment in sovereign bonds, which depresses the price of a bond. It is worth noting that the main holders of sovereign debt are banks and some other financial institutions.

If the bond price decreases, banks will be willing to sell off sovereign debt. This provokes a further decline in the value of sovereign debt. A rise in credit risk on sovereign debt will lead to an increase in the banking sector's credit risk through a reduction in the value of banks' assets. This places a constraint on the volume of collateralised lending and borrowing in the interbank market. The volume of repurchase agreements – short-term collateralised loans that use

Historically, episodes of sovereign defaults that occurred in emerging-market economies, notably in Ecuador and Russia, led to large losses in their national banking sectors. Also, the expectation of support from national governments encourages banks to boost leverage, which makes them even more vulnerable to sovereign defaults. Moreover, stronger financial institutions tend to be more leveraged and thus more exposed to systemic risk.

Our research has important implications for macroeconomic policy. Quite intriguingly, our findings implicitly suggest that bank bailouts should be countercyclical rather than procyclical. In other words, to minimise potentially adverse effects of government intervention in the banking sector, the government should behave as a profit-seeking private investor. That is, it should purchase bank stocks when banks are financially stronger and should sell them when the bank's market value is lower. If the government becomes a majority shareholder, then it can also warrant responsible lending and thus prevent future banking crises from occurring.

But the government does not have sufficient expertise to run financial institutions. An established view is that state-owned banks are relatively inefficient and they cannot compete with private banks. If the government sells off its share of the banking sector, then banks again become vulnerable to adverse shocks to systemic risk. There is the belief among academics and policymakers that the financial and banking sectors are inherently procyclical.

A natural question is whether and, if so, how the government could ameliorate the procyclicality phenomenon. To this end, academic research has designed a range of tools for macro-prudential supervision. These involve countercyclical capital buffers (ie countercyclical reserve requirements and leverage targets) and caps on debt-to-income and loan-to-value rations. For instance, in the UK, when the Financial Policy Committee of the Bank of England anticipates an accelerated increase in credit growth, it may decide to raise the countercyclical capital buffer rate that applies to banks, building societies and large investment firms. It is expected that these macro-prudential measures will help prevent banking crises in the future from occurring and will avoid large costs to be imposed on the economy and the society, should massive capital injections and bank bailouts recur.

Conclusion

Our research findings are supportive of macro-prudential policy tools, but not of capital and liquidity to non-performing banks. Indeed, we find that – contrary to the conventional wisdom – taxpayer-financed massive government rescue packages actually destabilise the banking sector. We also shed light on the existence of a significant and adverse effect of bank bailouts on public finances, the risk of investment in sovereign debt and the price of insurance against such risk.

Moreover, financial crises and government interventions in the banking sector can alter the structure of such effects, thus aggravating the two-way banking-fiscal interconnectedness. Therefore, bank bailouts can be counterproductive and hence other regulatory measures and policymaking actions should be considered.

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